

REMARKS:

This paper is herewith filed in response to the Examiner's Office Action mailed on June 22, 2010 for the above-captioned U.S. Patent Application. This Office Action is a rejection of claims 3, 7, 20-22, and 25-38 of the application.

More specifically the Examiner has rejected claims 7, 25-26, 28, 32, and 35-38 under 35 USC 102(e) as being anticipated by Tiedmann (US6,381,454); rejected claims 29-31 under 35 USC 102(e) as being anticipated by Wallentin (US20020086685); rejected claim 21 under 35 USC 103(a) as being unpatentable over Tiedemann in view of Huttunen (US6,356,761); and rejected claim 27 under 35 USC 103(a) as being unpatentable over Tiedemann in view of Mademann (US6,081,723).

Claims 3, 7, 20, 25-26, 28, 31, 33-35, and 37-38 have been amended. Support for the amendments can be found at least on page 11, lines 16-20; page 13, lines 24-25; and page 14, lines 4-5 of the Application as filed. No new matter is added.

Rejection of Independent claim 7

Regarding the rejection of independent claim 7 the Applicant disagrees with the Examiner.

Claim 7 recites:

“A method comprising: allocating, using a network element, a temporary identity for a mobile station in a cellular network; and sending a message to the mobile station, wherein the message comprises the allocated temporary identity for use by the mobile station during at least an uplink data transfer procedure, wherein the temporary identity comprises, in part, an identifier that uniquely identifies the network element that allocated the temporary identity.”

In accordance with an exemplary embodiment of the invention, when a mobile station (MS) attaches to a cellular network, for example a general packet radio service (GPRS) network, the

procedure is modified so that a temporary identity is sent to and/or received from the mobile station. The temporary identity which is allocated by a network node of the cellular network includes an identifier associated with the network node that allocated the temporary identity. Further, in accordance with the embodiments, the temporary identity uniquely identifies the network node used to allocate the temporary identity, (page 9, lines 30-35, page 13, lines 24-25, and page 14, lines 4-5 of the Application as filed).

In the rejection of claim 7 the Examiner states:

“Regarding **claims 7 and 35**, Tiedemann et al discloses in column 2 lines 29-37, of a method, the method comprising: [...] allocating and sending, using a Mobile Switching Center (MSC, 10), which reads on claimed “network element”, having an associated identifier a Temporary Reference Number (TRN) for a mobile station in a cellular network wherein the said TRN includes at least part of an identifier indicating the said MSC (10); [...] sending a message to the mobile station, wherein the message comprises signaling the allocated temporary identity to the mobile station for use by the mobile station during at least an uplink data transfer procedure and wherein the temporary identity. See column 8 lines 11-21,” (emphasis added), (see page 2-3 of the Office Action).

The Applicant disagrees with the Examiner. The Applicant submits that Tiedemann does not disclose or suggest at least where claim 7 recites in part:

“allocating, using a network element, a temporary identity for a mobile station in a cellular network; and sending a message to the mobile station, wherein the message comprises the allocated temporary identity for use by the mobile station during at least an uplink data transfer procedure, wherein the temporary identity comprises, in part, an identifier that uniquely identifies the network element that allocated the temporary identity.”

Tiedemann relates to over-the-air (OTA) service programming of a mobile station (col. 1, lines 12-15). The OTA begins with the mobile station initiating an OTA service programming call. According to Tiedemann, a user of the mobile station will initiate this call because the mobile device was just purchased and the user wants to operate the mobile station for normal use (col. 5, lines 60-65). In response to the mobile station’s call, a mobile switching center (MSC) supplies a

temporary reference number (TRN), associated with the mobile station and which identifies the MSC, to a customer service center (CSC) as part of call setup. The TRN supplied to the CSC serves as an initial reference for the over-the-air service programming attempt (col. 6, lines 29-46).

Tiedemann, as cited, discloses:

“In steps S3 and S9, the TRN is provided from the MSC 10 to the CSC 26, in the form of data, through the voice call set up procedure for the voice connection 46. The TRN is unique to the call being made and is used by the CSC 26 and MSC 10 as a transient (temporary) identifier of the mobile station 2's request for over-the-air service programming. Attributes of the TRN include (1) mobile station identifiability which permits the CSC to identify the mobile station in question, and (2) MSC addressability which permits other network resources, such as the HLR, to uniquely identify the MSC servicing the mobile station 2 by the TRN,” (emphasis added), (col. 8, lines 11-21).

Tiedemann discloses that the TRN is provided from the MSC 10 to the CSC 26. According to Tiedemann the TRN is provided from the MSC to the CSC so that that the CSC can identify the mobile station. Further, the Applicant submits that, according to Tiedemann, the CSC contacts a Home Location Register (HLR), and transfers the TRN to the HLR. The HLR derives the MSC based on the TRN (see col. 11, lines 8-12). However, the Applicant submits that Tiedemann does not disclose or suggest that the Temporary Reference Number (TRN) is sent to the mobile station in Tiedemann. Rather, the Applicant submits that Tiedemann merely discloses that the TRN is sent to the CSC and the CSC then sends the TRN to the HLR. Further, the Applicant submits that Tiedemann does not disclose how the TRN of Tiedemann could even be used by a mobile station.

As stated above, the TRN includes “mobile station identifiability which permits the CSC to identify the mobile station in question”. The Applicant submits that according to Tiedemann this “identifiability” can be the mobile station identification (MSID), (col. 6, lines 32-33). Further, the Applicant notes that Tiedemann discloses that “If the TRN is not an MSID, a unique and temporary MSID is also allocated for use during the service programming procedure,” (col. 7, lines 58-60). However, the Applicant submits that, similarly, this temporary MSID is also not sent to the mobile station in Tiedemann. Rather, Tiedemann discloses that the temporary MSID is

for use by the HLR such as if update procedures are performed (col. 9, lines 10-34). Moreover, the Applicant submits that Tiedemann does not disclose how the mobile station would even use the temporary MSID of Tiedemann.

It is noted that Tiedemann discloses:

“The service unit or the home location register may allocate a new permanent MSID for the mobile station and transfer service programming information, possibly including the newly allocated permanent MSID, into the mobile station via the mobile switching center using the communications network,” (col. 3, lines 9-19); and

Here, Tiedemann appears to disclose that the service unit or the home location register may transfer service programming information including a new permanent MSID into the mobile station via the communications network. According to Tiedemann the MSID can be either be a 34 bit mobile identification number (MIN) or an International Mobile Station Identity (IMSI) up to 15 digits in length that uniquely identifies the mobile station (col. 2, lines 18-23). However, the Applicant submits that the permanent MSID from the service unit or home location register clearly does not uniquely identify either the service unit or home location register. Rather, this permanent MSID uniquely identifies the mobile station of Tiedemann.

Further, the Applicant respectfully directs the Examiner to Figure 7 of Tiedemann where there is identified a communication with the mobile station which relates to updating a Shared Secret Data (SSD). The Applicant notes that according to Tiedemann the SSD is a bit pattern stored in the mobile station, (col. 3, line 67 to col. 4, line 1). The Applicant submits that in Tiedemann there is not disclosed that this update SSD procedure of Tiedemann, as illustrated in Figure 7, somehow uses the TRN. Moreover, the Applicant re-submits that Tiedemann does not disclose any operation where the TRN is sent to the mobile station.

The Applicant submits that, for at least these reasons, Tiedemann does not disclose or suggest at least where claim 7 recites in part:

“allocating, using a network element, a temporary identity for a mobile station in a cellular network; and sending a message to the mobile station, wherein the message comprises the allocated temporary identity for use by the mobile station during at least an uplink data transfer procedure, wherein the temporary identity comprises, in part, an identifier that uniquely identifies the network element that allocated the temporary identity.”

Therefore, the Applicant requests that the Examiner remove the rejection and allow claim 7.

Rejection of independent claims 20, 25, 28, and 35

The Applicant submits that for at least the reasons already stated with regards to claim 7, Tiedemann does not disclose or suggest independent claims 20, 25, 28, and 35.

The Applicant submits that, for at least these reasons, Tiedemann does not disclose or suggest at least where independent claim 20 recites in part:

“a network element configured to allocate a temporary identity to a mobile station for use by the mobile station during at least an uplink data transfer procedure, wherein the temporary identity comprises, in part, an identifier that uniquely identifies the network element that allocated the temporary identity.”

Therefore, the Examiner is requested to remove the rejection and allow claim 20.

Further, for at least the reasons stated above the Applicant submits that Tiedemann does not disclose or suggest at least where independent claim 25 recites in part:

“a receiver configured to receive a message, wherein the message comprises a temporary identity allocated to the mobile station, wherein the temporary identity comprises, in part, an identifier that uniquely identifies a network element that allocated the temporary identity, and the mobile station is configured to use the temporary identity during at least an uplink data transfer procedure.”

Therefore, the Applicant requests that the rejection of claim 25 be removed and claim 25 be allowed.

In addition, for at least the reasons already stated, Tiedemann does not disclose or suggest at least where independent claim 28 recites in part:

“a controller configured to allocate a temporary identity for a mobile station in a cellular network; and the controller is further configured to send a message to the mobile station, wherein the message comprises the allocated temporary identity for use by the mobile station during at least an uplink data transfer procedure, wherein the temporary identity comprises, in part, an identifier that uniquely identifies the network element that allocated the temporary identity.”

The Applicant requests that the Examiner remove the rejection and allow claim 28.

Further, the Applicant submits that for at least the reasons already stated Tiedemann does not disclose or suggest at least where independent claim 35 recites in part:

“receiving at the mobile station, in response to the communication, a message comprising a temporary identity allocated to the mobile station for use by the mobile station during at least an uplink data transfer procedure, wherein the temporary identity comprises, in part, an identifier that uniquely identifies a network element that allocated the temporary identity.”

Therefore, the Examiner is requested to remove the rejection of claim 35 and allow this claim.

Rejection of Independent claim 31 as anticipated by Wallentin

In the Office Action independent claim 31 is rejected as being anticipated by Wallentin.

The Examiner states:

“Regarding *claim 31*, Wallentin et al discloses in paragraph [0052], a radio station controller for a cellular network, configured to route data packets in a General Packet Radio Service, including a Temporary Mobile Station Identification (TMSID) allocated to a mobile station, wherein the said TMSID includes at least part of an identifier indicating a Radio Network Controller

(RNC), which reads on claimed “network element”, which allocated the temporary identity and wherein the said RNC is configured to used at least part of the said TMSID to route data packets to the second RNC, which reads on claimed “network element”, serving the mobile station. See paragraph [0051, 0063, 0077, 0075],” (emphasis added), (see pages 4-5 of the Office Action).

The Applicant disagrees with the rejection. Wallentin relates to paging a mobile station in a multicell area, particularly when the core network does not know from which nodes a paging message should be issued (par. [0019]). Wallentin discloses a method where a paging control node includes at least one paging table. The paging tables includes a list and layers designations of multicell areas (paragraphs [0044], [0046], and [0047]). According to Wallentin, the importance of layer designation stems from the fact that, in the paging message, the mobile station MS can be identified by a temporary mobile station identifier (TMSI) with respect to the multicell area in which it currently resides. In addition, according to Wallentin the assignment of a TMSI to identify a mobile station in a multicell area is complicated by the fact that differing multicell areas may use the same TMSI to identify mobile stations in their areas (par. [0051]).

First, the Applicant submits that Wallentin does not disclose that a TMSI is sent to the mobile station. Rather, according to Wallentin “the first radio network control node issues a paging message including a temporary mobile station identifier [TMSI] (1) to those base stations in the first group belonging to the multicell area and (2) to the second radio network control node,” (emphasis added), (claim 43). Thus, for at least this reason, Wallentin does not disclose or suggest at least where claim 31 relates to a controller configured to route data packets to a mobile station including a temporary identity allocated to a mobile station.

Further, as similarly stated above, Wallentin as cited merely discloses, that “the mobile station MS can be identified by a temporary mobile station identifier (TMSI) with respect to the multicell area in which it currently resides,” (par. [0051]). The Applicant submits that identifying a mobile station by a TMSI with respect to a multicell area does not disclose or suggest that the TMSI of Wallentin is somehow including an identifier indicating a Radio Network Controller as asserted in the rejection.

The Applicant submits that where Wallentin states that “the mobile station MS can be identified by a temporary mobile station identifier (TMSI) with respect to the multicell area in which it currently resides” (emphasis added) appears to relate to a layer designation included in a paging message to a mobile station of Wallentin. According to Wallentin, prior to sending a paging message, a radio controller determines a layer identification of its own multicell area based on a table in Wallentin. The radio controller then includes the layer designation of its own multicell area in the paging message (paragraph [0052]). Wallentin discloses:

“The other mobile in the overlap area OA-Q, although recognizing the same TMSI, knows from the layer parameter that the paging message is intended for multicell area MCA-A rather than multicell area MCA-K, and therefore does not respond. Only the mobile station MS to which the paging message is intended responds, despite possible double assignment of TMSI values within the overlap area OV-Q,” (emphasis added), (paragraph [0052]).

Therefore, the layer designation included in the paging message merely identifies, to the Mobile station, the multicell area for which the paging message is intended for. Further, according to Wallentin the mobile station must also be made aware of which layer it is registered in or belongs to (par. [0054]). However, the Applicant submits that although the layer designation may identify a particular one or more multicell areas and can be somehow associated with a layer known by a mobile station, the layer parameter or designation does not uniquely identify the network element that included the parameter or designation in the paging message of Wallentin. Rather, the parameter or designation simply identifies a layer which the mobile station of Wallentin may compare to a known layer which it belongs and thus determine if the paging message was intended for it or another mobile station in the multicell.

The Applicant submits that, for at least these reasons, Wallentin does not disclose or suggest at least where claim 31 recites in part:

“a controller configured to route data packets to a mobile station in a cellular network, the data packets including a temporary identity allocated to the mobile

station in the cellular network, wherein the temporary identity was allocated for use by the mobile station during at least an uplink data transfer procedure, wherein the temporary identity comprises, in part, an identifier that uniquely identifies a network element that allocated the temporary identity”

Therefore, the Applicant requests that the Examiner remove the rejection of independent claim 31 and allow this claim.

Rejection of claim 3

Regarding the rejection of claim 3, the Examiner states:

“Tiedemann et al discloses further where the uniquely identification of the said mobile station based on the identifier of the said mobile station and the said identification of the service area, which reads on claimed “paging area”, where the said TMSID was allocated. See column 2 lines 50-65,” (page 3 of the Office Action).

The Applicant submits that, as similarly stated above, Tiedemann discloses “Attributes of the TRN include (1) mobile station identifiability which permits the CSC to identify the mobile station in question, and (2) MSC addressability which permits other network resources, such as the HLR, to uniquely identify the MSC servicing the mobile station 2 by the TRN,” (emphasis added), (col. 8, lines 17-21). The Applicant submits that the TRN (apparently identified in the rejection as a TMSID) does not include an identification of a service area, as asserted in the rejection.

Further, the Applicant notes that Tiedemann discloses:

“If it is determined that the initial service unit is not the desired service unit, the voice call gets forwarded to one service unit after another until a desired service unit is reached. The TRN, and possibly the MSID and the electronic serial number, also get sent to the final service unit,” (col. 2, lines 48-52).

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The Applicant submits that for at least the reason that the voice call is forwarded from one service unit to another until a desired service unit is reached, the TRN of Tiedemann clearly does not identify a service area, as asserted in the rejection.

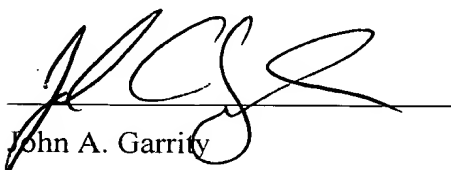
The Applicant submits that for at least the reasons already stated above, Tiedemann does not disclose or suggest at least where claim 3 recites in part "uniquely identifying the first network element based on the identifier associated with the first network element and an identifier of a paging area where the temporary identity was allocated." Thus, the Applicant requests that the Examiner remove the rejection and allow claim 3.

Furthermore, as the claims 3 and 32-34, claims 21-22, claim 26, claim 27, claims 29-30, and claims 36-38 depend from claims 7, 20, 25, 28, 31, and 35, respectively, the references cited do not disclose or suggest these claims and these claims should be allowed.

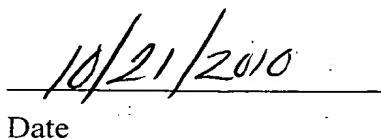
Based on the above explanations and arguments, it is clear that the references cited do not disclose or suggest claims 3, 7, 20-22, and 25-38. The Examiner is respectfully requested to reconsider and remove the rejections and to allow all of the pending claims 3, 7, 20-22, and 25-38 as now presented for examination.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Should any unresolved issue remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted:


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Date